

## UNITED STATES PATENT OFFICE

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## GAS GUN

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The invention relates to improvements in gas guns especially adapted for use by policemen and the like in capturing vicious criminals without material injury to the criminal, the primary object of the invention being to provide a simple and efficient device of this character which is highly efficient in use.

Another object of the invention is the provision of a device of the character indicated, provided with simple and effective means preventing accidental discharge of the same.

Other objects will appear hereinafter.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification and in which—

Fig. 1 is a perspective view of a gas gun embodying the invention;

Fig. 2, an enlarged longitudinal section of the same; and

Fig. 3, a partial section similar to Fig. 2 but showing the parts in firing relation.

The preferred form of construction, as illustrated in the drawings, comprises a cylindrical stock or handle member 4 made in substantial imitation of an ordinary fountain pen and provided with a retaining clip 5 for retaining the same in the pocket of the user. At one end the stock member 4 is closed by means of a removable plug 6 threaded therein, as shown, and provided with a socket 7 for the reception of one end of a firing spring 8. A plunger 9 is mounted to reciprocate in the stock 4 and is provided with a socket 10 to receive the other end of the spring 8. The plunger 9 carries a firing pin 11 adapted and arranged to project through a central opening 12 in a firing block 13 threaded in the open end of the stock 4. A firing barrel 14 is also threaded in the open end of the stock 4 for ready removal, the inner end of said barrel being adapted and arranged to receive a cartridge 15. The cartridge 15 is in the form of an ordinary blank cartridge loaded with tear gas adapted to render a vicious criminal or the like in-

capable of effective resistance by temporarily blinding him or her.

The plunger 9 is provided with a laterally projecting thumb piece 16 projecting through and operating in an elongated longitudinal slot 17 in the side of the stock 4. The slot 17 is provided in one side adjacent its firing end with a retaining or locking notch 18 adapted and arranged to receive the thumb piece 16 and hold the firing pin 11 in close proximity to, but out of firing contact with, the cartridge 15. By this arrangement, as long as the thumb piece 16 remains in the notch 18, it is impossible for the cartridge 15 to be accidentally fired.

It will be noted that it is impossible, under such circumstances, for the plunger to be accidentally retracted a sufficient distance so that, when released, there is danger of accidentally firing the cartridge 15. Likewise, the proximity of the firing pin 11 to the cartridge 15 is so close that if the thumb piece 16 should be accidentally dislodged from the notch 18, it cannot be impelled by the spring 8 with sufficient inertia to fire the cartridge. Likewise, also, in case the thumb piece 16 should be accidentally struck a longitudinal blow in the direction toward the cartridge 15, it is impossible for such a blow to fire the cartridge as long as the thumb piece 16 is retained in the notch 18. Thus it will be noted that the device is provided with simple and effective means preventing or minimizing danger of accidental firing of the same. When it is desired to fire the gun, all that is necessary is to remove the thumb piece 16 from the notch 18, retract the same a short distance, and then release it, whereupon the plunger 9 will be impelled by the spring 8 with sufficient inertia to cause firing of the cartridge 15, as will be readily understood.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of modification and variation without departing from the spirit of the invention. I therefore do not wish to be limited to the precise details disclosed but desire to avail myself of such modifications and variations as fall within the scope of the appended claims.

I claim:

1. A device of the class described comprising a shock member; a firing barrel detachably connected with said stock and adapted and arranged to receive a cartridge for firing;  
5 a spring actuated firing plunger in said stock in operative relation with a cartridge in said barrel; an actuating thumb piece on said plunger and projecting from said stock, there  
10 being an elongated longitudinal slot in said stock permitting reciprocations of said plunger, a retaining notch being provided in one side of said slot adjacent the firing end thereof adapted and arranged to lock said  
15 plunger in close proximity to, but out of firing contact with, said cartridge.

2. A device of the class described comprising a cylindrical stock member open at one end and closed at the other end by means of a  
20 removable closure member threaded therein; a firing barrel threaded in the open end of said stock and adapted and arranged to receive a cartridge in its inner end; a firing block threaded in the open end of said stock  
25 and positioned adjacent the inner end of said barrel, said block being centrally perforated for the passage of a firing plunger; a firing plunger mounted to reciprocate in said stock and project through said firing block to fire a  
30 cartridge in said barrel; a spring in said stock for actuating said plunger; an actuating thumb piece on said plunger and projecting from said stock, there being an elongated longitudinal slot in said stock permitting reciprocations of said plunger, a retaining notch being provided in one side of said slot adjacent the firing end thereof adapted and arranged to lock said plunger in close proximity to, but out of firing contact with, said  
cartridge.

3. A device of the class described, comprising a stock member; a firing barrel on said stock member and arranged to receive a cartridge for firing; a spring-actuated firing  
45 plunger in said stock in operative relation with a cartridge in said barrel; an actuating thumb-piece on said plunger and projecting from said stock, there being an elongated longitudinal slot in said stock permitting reciprocations of said plunger, a retaining notch being provided in one side of said slot at a comparatively short distance from the firing end thereof, and adapted and arranged to receive  
50 said thumb piece and lock said plunger, said retaining notch being so located as to hold  
55 said plunger out of firing contact with said cartridge but in such close proximity thereto as to prevent accidental firing thereof upon accidental release of said plunger from said  
60 notch.

In witness that I claim the foregoing as my invention, I affix my signature this 29th day of January, 1929.

WILLIAM S. DARLEY.

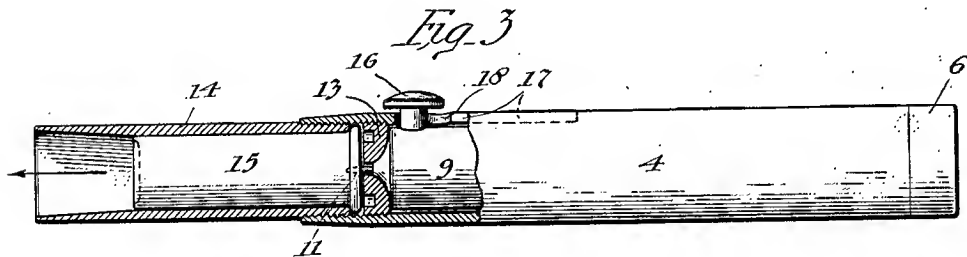
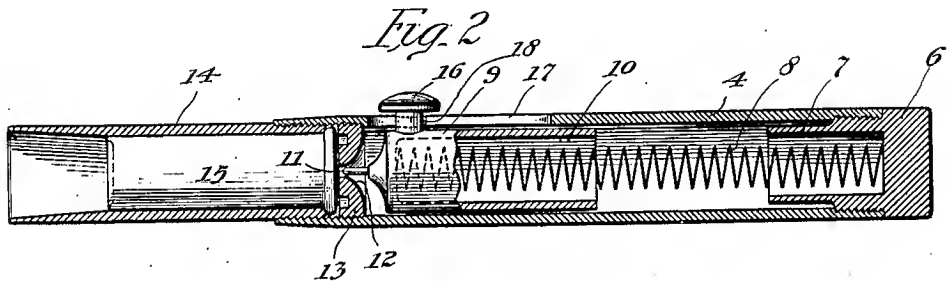
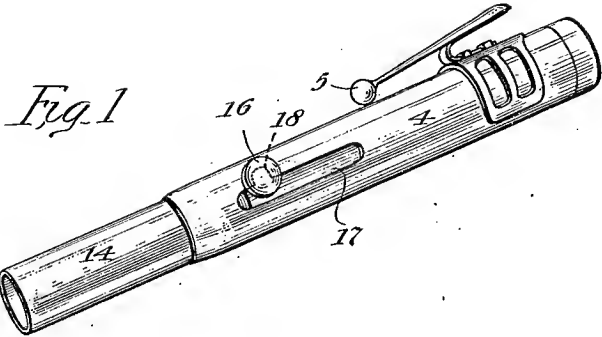
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GAS GUN

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